

DISCUSSION PAPER NO. 5

**Agriculture under WTO Regime:
Cross Country Analysis of Select Issues**

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Chapter 1

Introduction

1.1 BACKGROUND

Agriculture trade plays an important role in the economic development of a nation. The agriculture sector has received special treatment in all countries at every stage of development due to issues related to livelihood, food security, high population dependence and political sensitivity. Therefore this sector enjoys an important status for both the developed and the developing countries, especially in the context of General Agreement on Tariff and Trade – GATT/WTO negotiations as well as bilateral or regional trade arrangements. For a developing country like India, this sector is an engine of economic growth due to livelihood & food security and its interdependence with industrial sector. In developing nations, economic growth to a great extent depends on agriculture sector. This implies that uncertainty in the world agriculture market will have a greater impact on developing countries than on developed nations.

The Agreement on Agriculture (AoA) under WTO gave hopes to the developing nations that the opening up of the economy would go a long way in removing discrimination against tradable agriculture and would bestow immense benefits to them through increased exports. Due to the reduction in tariffs and some discipline on subsidies on agriculture, it was expected that developing countries would be benefited by signing the GATT agreement as farmers had a comparative advantage in the production of agriculture commodities. However, the outcome of AoA has not been beneficial to the developing countries as was expected or predicted in early 1990s. This is not only due to

increase in agriculture subsidy but rise in use of non-tariff measures. Numerous distortions and market access barriers, present in the developed countries have adversely affected the agricultural exports of the developing countries. In the developed countries the share of agriculture sector in their total GDP is not as high as compared to the developing countries; however due to strong lobbies that exist in their constituencies they are required to provide huge subsidy to agriculture sector.

Various issues were debated during the 1990s about Indian agriculture, especially, the impact of economic reforms and trade liberalization on the same. Trade liberalisation in agriculture under WTO brings opportunities and challenges to the members. In case of India, it has created more of challenges than opportunities for Indian farmers. The likely gain from the trade liberalisation depends on the export competitiveness of the agriculture sector. Export competitiveness of a country in agriculture depends on the trend in the international prices, the domestic prices of agricultural commodities and the export subsidy given to the agriculture sector. It was expected that India would benefit by being the party to Uruguay Round commitments due to the comparative advantage in the production of agriculture commodities in early nineties. However, the outcome of Agreement on Agriculture (AoA) has not been beneficial to India as was expected. India's agricultural trade performance since 1995 has not been satisfactory. After 1996, the world prices of agricultural commodities started falling and it made a dent in the competitiveness of India's exports and a slowdown of growth in agricultural exports was experienced.

The objectives of agricultural policies and their relative importance vary across the developed and developing countries. For example, retaining domestic self-sufficiency in the production of rice is a major objective in Japan. The United States provides many different forms of support to producers,

aimed predominantly towards providing a safety net. New Zealand and Australia rely mainly on world market signals to determine what is produced. The developed countries continue to protect their agriculture sector. For example, in many developed countries, agriculture production is heavily subsidized by government, agriculture exports are encouraged through government supported programs and agricultural imports are restricted through various mechanisms like tariff and non-tariff barriers. While the developed countries have enough resources to support their farmers through various incentives; the developing countries do not have sufficient resources to support their farmers. Agriculture- related domestic and trade policies of developed nations have resulted in inefficient agriculture production and distortion of world agriculture trade and thereby denying the rightful share to the developing countries.

1.2 OBJECTIVES

With the above background, this study aims to examine the agriculture trade performance and policy of Australia, India, Japan, New Zealand and USA.

The specific objectives of this study are:

- (i) To make a comparative analysis of the role played by agriculture in overall economies of select countries.
- (ii) To see the trend in agriculture trade and identify the key agricultural export & import items in select countries.
- (iii) To examine the domestic support policies in developed nations.
- (iv) To assess the tariff and non-tariff barriers in developed nations, which are main concern for the developing nations, especially India.

1.3 DATA SOURCE

The following sources were used for the data analysis.

- (i) FAO STAT
- (ii) World Bank
- (iii) Members notifications on domestic support to WTO
- (iv) World tariff profile issued by WTO
- (v) WTO: World trade profile issued by WTO
- (vi) Centre for WTO Studies data base on SPS & TBT
- (vii) Census of India
- (viii) Agricultural statistic at Glance
- (ix) Planning Commission of India

1.4 CHAPTERISATION SCHEME

Chapter (1) contains the introduction, objective and data source. The importance of agriculture in select countries is analyzed in Chapter (2). Chapter (3) deals with trend in agriculture trade in select countries, whereas Chapter (4) evaluates the domestic support policies of select countries. Chapter (5) and (6) are related to tariff and non-tariff barrier in developed nation. Last Chapter gives the finding of the study.

Chapter 2

Importance of agriculture sector

2.1 Background

Even after 60 years of independence, agriculture continues to be one of the most important sectors of the Indian economy. The green revolution has been the cornerstone of India's agriculture achievement, transforming the country from being food deficient to food sufficient. Though the share of agriculture in the aggregate economy has declined rapidly over the years, it assumes a crucial role in the rural economy. Despite the declining share of agriculture in the economy, majority of the workforce continue to depend on agricultural sector for employment. With this background of the Indian agriculture, this chapter makes a comparative analysis of the role played by agriculture sector in India, USA, Japan, Australia and New Zealand.

2.2 Trend in GDP

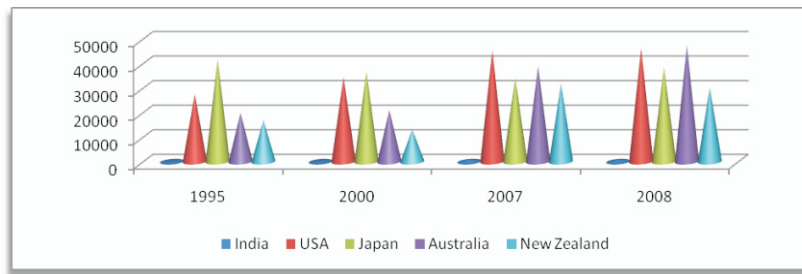
India is the one of the fastest growing economies of the world, but India's GDP is much lower than the GDP of USA and Japan (see table 2.1). However, inequality between developed and developing countries would be clearer on the basis of the trend in per capita income. Per capita income in India for year 2008 was US\$1017, which is about 46 times lower than the per capita income in USA (See figure 2.1).

Table 2.1: Trend in GDP (million US \$)

	1995	2000	2007	2008
India	356299	460182	1176890	1159171
USA	7342300	9764800	13741600	14093310
Japan	5247610	4667448	4380508	4910840
Australia	361306	405111	820974	1015217
New Zealand	62049	50896	134683	129940

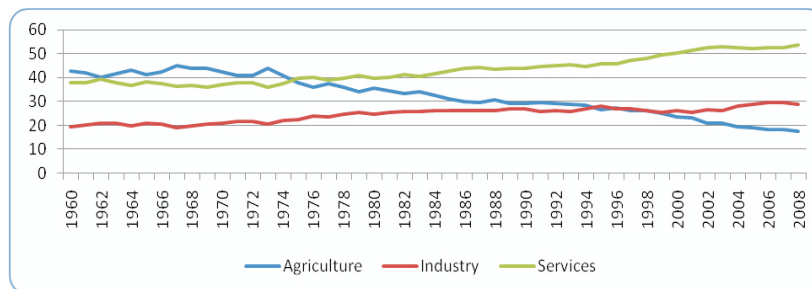
Source: World Bank

Figure 2.1: Per capita income (US\$)



Source: World Bank

Figure 2.2: Composition of India's GDP: Value added (% of agriculture GDP)



Source: World Bank

In India, the share of agriculture sector in GDP has declined after the independence. However this sector still accounts for about 17.47 percent of GDP (figure 2.2). Service and industry sector account for the major share of GDP as the case of developed nations. Despite this, it is noteworthy that the share of agriculture sector in India is much higher in comparison to other nations (see table 2.2)

Table 2.2: Share of agriculture in GDP (percentage)

	1995	2000	2007	2008
India	26.49	23.35	18.11	17.47
USA	1.61	1.23	1.33	N.A.
Japan	N.A.	1.96	1.47	1.44
Australia	3.42	3.51	2.41	2.55
New Zealand	7.46	8.92	N.A.	N.A.

Source: World Bank

2.3 Demographic indicators

India is the second most populous nation of the world with a population of nearly 1.13 billion. The population and density in India is much higher than the population of developed nations (see table 2.3).

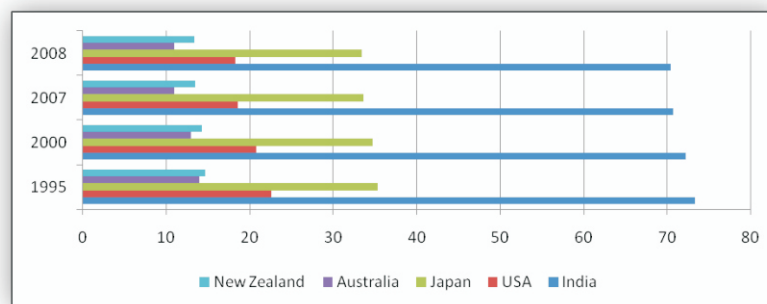
The share of rural population in total population in India is more than other developed nations. To a great extent, this section of population is dependent on agriculture sector for their livelihood. Therefore, the agriculture sector is the backbone of rural India.

Table 2.3: Population and Density

	1995	2000	2007	2008
Population				
India	932180000	1015923000	1124786997	1139964932
USA	266278000	282172000	301290000	304060000
Japan	125439000	126870000	127770750	127704000
Australia	18072000	19153000	21072500	21431800
New Zealand	3673400	3857800	4228300	4268900
Population Density				
India	314	342	378	383
USA	29.07	30.80	32.89	33.19
Japan	344	348	351	350
Australia	2	2	3	3
New Zealand	13.72	14.41	15.79	15.95

Source: World Bank

Figure 2.3: Share of Rural population



Source: World Bank

2.4 Employment:

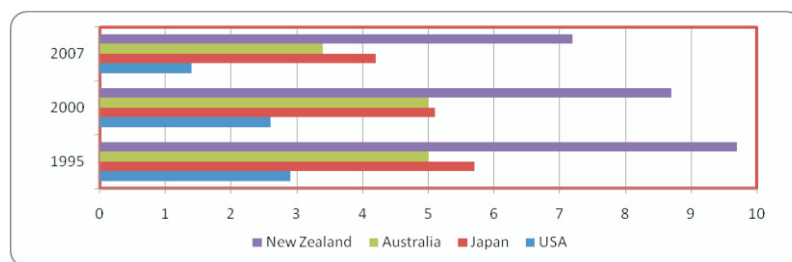
From the employment perspective, this sector plays a pivotal role in Indian economy. In 2001, about 57 Percent (31.7 cultivators and 26.7 agricultural labourers) of total work force is employed in this sector (table 2.4). On the other hand, the share of agriculture in total employment in USA and New Zealand is 1.4 and 7.2 percent respectively in 2007.

Table: 2.4
Population and Agricultural Workers (in millions)

Year	Rural Population	Cultivators	Agricultural Labourers	Other Workers	Total Rural
1951	298.6 (82.7)	69.9 (49.9)	27.3 (19.5)	42.8 (30.6)	140 (100.0)
1961	360.3 (82.0)	99.6 (52.8)	31.5 (16.7)	56.6 (30.5)	188.7 (100.0)
1981	523.9 (76.7)	92.5 (37.8)	55.5 (22.7)	96.6 (a) (39.5)	244.6 (100.0)
1991	628.7 (74.3)	110.7 (35.2)	74.6 (23.8)	128.8 (a) (41.0)	314.1 (100.0)
2001	741.7 (72.22)	127.6 (31.7)	107.5 (26.7)	167.4 (41.6)	402.5 (100.0)

Source: Census of India

Figure 2.4:Share of agriculture in Employment (percentage)



Source: World bank

Total agriculture land in India is lower than USA and Australia, but higher than Japan and New Zealand. However, if population dependence on agriculture sector is taken into account then it would be clear that this sector is overburdened (see Table 2.5 and 2.6). It leads to fragmentation of landholding and disguised employment in agriculture sector. In case of India, about 82 percent of landholding is less than 2 hectare and about 99 percent of landholding is less than 10 hectare. It is obvious that majority of Indian farmers are resource poor. The vulnerability of Indian population can also be gauged by seeing the poverty data. About 27.5 percent of Indian population is below poverty line. In India, the poverty line for urban and rural area was Rs. 538 and Rs. 356 per capita per month respectively in year 2004-05 (see Figure 2.5).

Table 2.5: Agricultural land (sq. km.)

	1995	2000	2007
India	1807800	1825730	1799000
USA	4201390	4143990	4111580
Japan	54430	52580	46500
Australia	4633480	4555000	4254490
New Zealand	149750	154130	122860

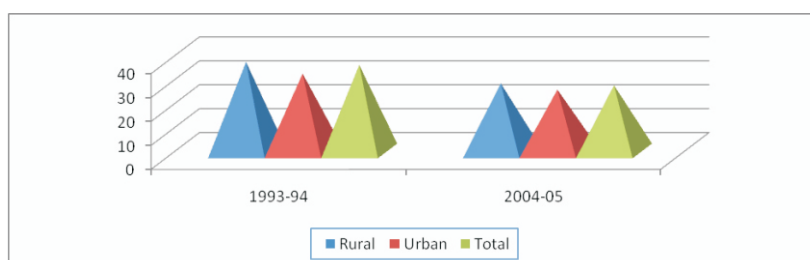
Source: World Bank

Table: 2.6
Percentage of total area operated by small agricultural holdings in India, 1990-91, 1995-96 and 2000-01

Category	Percentage of holdings			Percentage of area covered		
	1990-91	1995-96	2000-01	1990-91	1995-96	2000-01
Up to 2 hectares	78.2	80.3	81.9	32.4	36.0	39.0
Up to 4 hectares	91.3	92.6	93.6	55.6	59.8	63.0
Up to 10 hectares	98.4	98.7	99.0	82.7	85.1	86.8

Source: GOI, Agricultural Statistics at a Glance, Various Issue

Figure 2.5: Comparison of Poverty Estimates Based on Uniform Recall Period



Source: Planning Commission of India

In case of Doha round, the tariff reduction commitments made in agriculture and NAMA will impact Indian economy as the combined share of both the sector comprise 46.30 percent of the total GDP in 2008 (see table 2.7). On the other hand in case of other select countries, this share lies between 24 to 35 percent. It is the service sector in these countries that comprise more than 65 percent of total GDP, which is a huge market there. Therefore, India must seek greater market access in services to get equitable

Table 2.7
Share of Service sector and Agriculture & Industry in total GDP (percent)

Country	1995		2000		2005		2008	
	Service	Agri-culture & industry	Service	Agri-culture & industry	Service	Agri-culture & industry	Service	Agri-culture & industry
India	45.68	54.32	50.46	49.54	52.18	47.82	53.70	46.30
USA	72.10	27.90	74.61	25.39	76.36	23.64	N.A.	N.A.
Japan	N.A.	N.A.	63.57	36.43	65.82	34.18	69.30	30.70
Australia	67.61	32.39	69.58	30.42	69.96	30.04	68.36	31.64
New Zealand	65.64	34.36	65.81	34.19	N.A.	N.A.	N.A.	N.A.

Source: World Bank

market access benefit. Annexure A provides the information about the composition of GDP in selected developed and developing countries.

Thus, Agriculture sector plays an important role in India in terms of GDP, employment, poverty eradication and rural development in comparison to developed nation. Overall economic and human development of India to a great extent depends on the performance of this sector.

Chapter 3

Trend in Agriculture Trade

3.1 INTRODUCTION

Agriculture trade is one of the important components of total merchandise trade. For a developing nation like India, agriculture sector is an engine of economic growth and the welfare of the people to a large extent depends on the performance of this sector. A reverse situation exists in most of developed nations as agriculture represents a small portion of their economy (as discussed in chapter 2). The long term objective of Agreement on Agriculture (AoA) is to provide for a substantial and progressive reductions in agricultural support and protection. Despite this, many reports pointed out that developed countries tend to provide more protection and support to agriculture than developing nation. Such protections are in the forms of domestic support, tariff and non-tariff barriers. Therefore, the agricultural exports of the developing countries like India, suffered a lot. It is in this background that this study examine the trend in agriculture trade and identify the key agricultural export & import items in select countries.

3.2 TREND OF AGRICULTURAL EXPORT:

Table 3.1 show the share of select countries in world merchandise export. The share of Japan, New Zealand and USA has declined over the period 1980 to 2009. For Australia and India, this share has increase over the same period. However, Japan and USA have significant share in world merchandise export.

Table: 3.1
Share in Merchandise Export

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	2034	1.08	0.42	6.41	0.27	11.09
1990	3449	1.15	0.52	8.34	0.27	11.41
1995	5164	1.03	0.59	8.58	0.26	11.32
2000	6456	0.99	0.66	7.42	0.21	12.11
2007	13993	1.01	1.07	5.10	0.19	8.21
2008	16097	1.16	1.21	4.86	0.19	8.00
2009	12461	1.24	1.25	4.66	0.20	8.48

Source: World Trade Profile from WTO, 2010

Table 3.2 reveals the share of select countries in world agricultural export. The share of Australia, Japan and USA has declined, whereas for India and New Zealand, this share has increased over the period 1980 to 2008. For India, this share has increased from 0.95 percent in 1980 to 1.59 percent in 2008.

Table: 3.2
Share in agriculture export

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	299	3.29	0.95	0.98	1.30	16.99
1990	415	2.86	0.85	0.80	1.44	14.32
1995	589	2.50	1.07	0.79	1.41	13.66
2000	552	2.98	1.07	0.80	1.38	12.94
2007	1129	1.98	1.46	0.67	1.42	10.07
2008	1342	1.95	1.59	0.62	1.33	10.43

Source: World Trade Profile from WTO, 2010

Similar trend is also observed for the share of select countries in world food export (table 3.3).

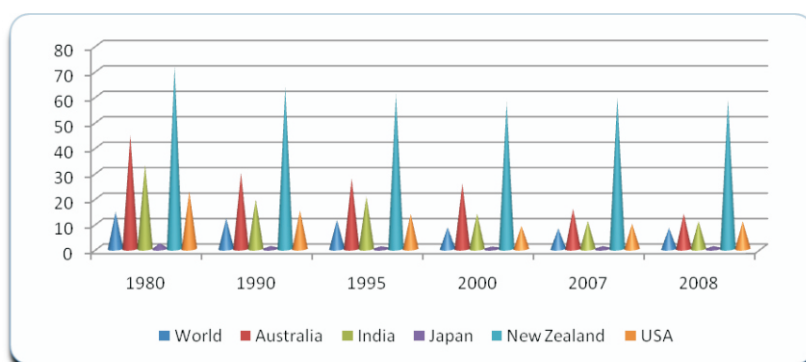
Table: 3.3
Share in food export

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	224	3.28	1.08	0.76	1.13	17.61
1990	316	2.52	0.88	0.54	1.35	13.44
1995	453	2.30	1.31	0.48	1.29	12.99
2000	432	2.91	1.25	0.50	1.35	12.58
2007	915	1.93	1.49	0.40	1.47	9.59
2008	1114	1.94	1.64	0.36	1.37	10.11

Source: World Trade Profile from WTO, 2010

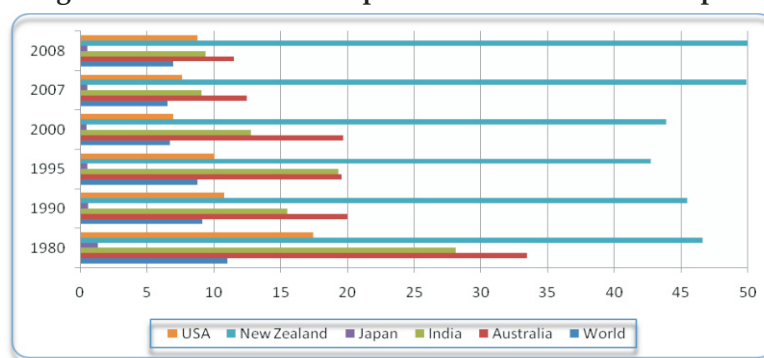
The share of agriculture export to total merchandise export has declined across the selected countries and also for the world at aggregate level. For India, this share was 33.08 percent in 1980, which declined to 11 percent in year 2008. This share is significantly higher (about 59 percent in 2008) for New Zealand. The trend is more or less the same for the share of food export to total merchandise export except for New Zealand. This share has increased for New Zealand from 46.64 percent in 1980 to 50 percent in 2008.

Figure 3.1: Share of agriculture export to total merchandise export



Source: World Trade Profile from WTO, 2010

Figure 3.2: Share of food export to total merchandise export



Source: World Trade Profile from WTO, 2010

3.3 TREND IN AGRICULTURAL IMPORT

Table 3.1 shows the share of select countries in world merchandise import. The share of Australia, India and USA has increased over the period 1980 to 2009. For Japan and New Zealand, this share has declined over the same period. However, USA and Japan still have significant share in world merchandise import.

Table: 3.4
Share in merchandise export

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	2075	1.08	0.72	6.81	0.26	12.38
1990	3550	1.18	0.66	6.63	0.27	14.56
1995	5283	1.16	0.66	6.36	0.26	14.59
2000	6724	1.06	0.77	5.64	0.21	18.73
2007	14287	1.16	1.61	4.36	0.22	14.14
2008	16493	1.21	1.95	4.62	0.21	13.15
2009	12647	1.31	1.93	4.35	0.20	12.68

Source: World Trade Profile from WTO, 2010

Table 3.5 shows the share of select countries in world agricultural import. The share of Japan and USA has declined, whereas for other countries, this share has increased over the period 1980 to 2008. For India, this share has increased from 0.47 percent in 1980 to 0.83 percent in 2008. Similar trend is also observed for the share of select countries in world food export (table 3.6).

Table: 3.5
Share in agriculture import

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	312	0.51	0.47	9.55	0.13	8.65
1990	443	0.62	0.39	11.46	0.17	9.02
1995	621	0.61	0.48	12.04	0.19	8.55
2000	599	0.71	0.66	10.38	0.20	11.54
2007	1192	0.75	0.82	5.77	0.24	9.19
2008	1413	0.74	0.83	5.70	0.24	8.20

Source: World Trade Profile from WTO, 2010

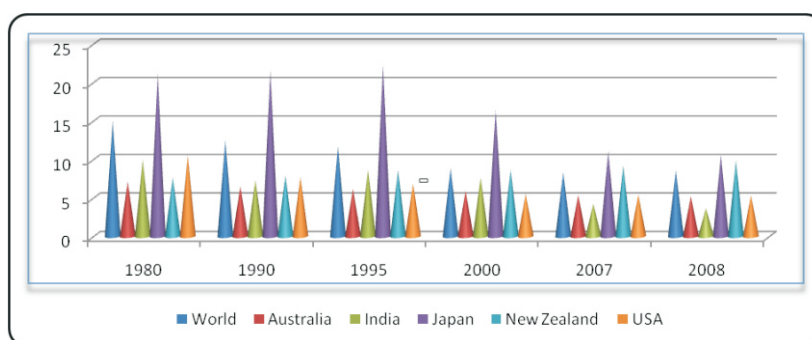
Table: 3.6
Share in food import

Year	World	Australia	India	Japan	New Zealand	USA
	(billion US\$)	Percent				
1980	234	0.44	0.53	7.21	0.14	8.81
1990	338	0.57	0.23	10.10	0.19	8.89
1995	479	0.59	0.32	11.28	0.22	7.69
2000	470	0.69	0.47	10.34	0.23	10.91
2007	966	0.79	0.62	5.72	0.27	9.08
2008	1173	0.77	0.62	5.64	0.27	8.12

Source: World Trade Profile from WTO, 2010

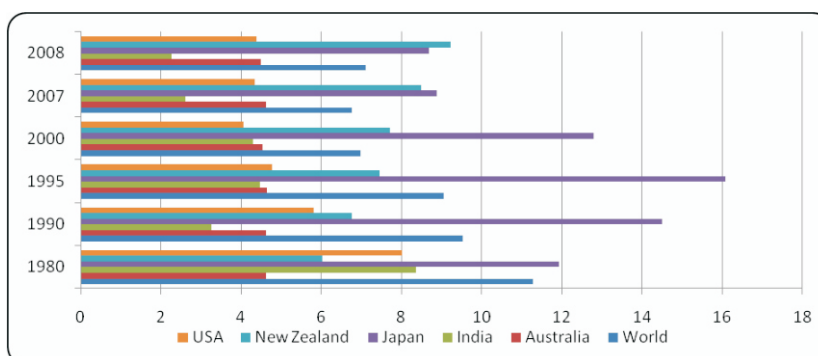
The share of agriculture export to total merchandise import has declined across the selected countries (except New Zealand) and also for the world at aggregate level. For India, this share was 9.97 percent in 1980, which declined to 3.67 percent in year 2008. This share is significantly higher (about 59 percent in 2008) for New Zealand. The trend is more or less the same for the share of food export to total merchandise export except for New Zealand.

Figure 3.3 Share of Agricultural import to total merchandise import



Source: World Trade Profile from WTO, 2010

Figure 3.4: Share of food import to total merchandise import

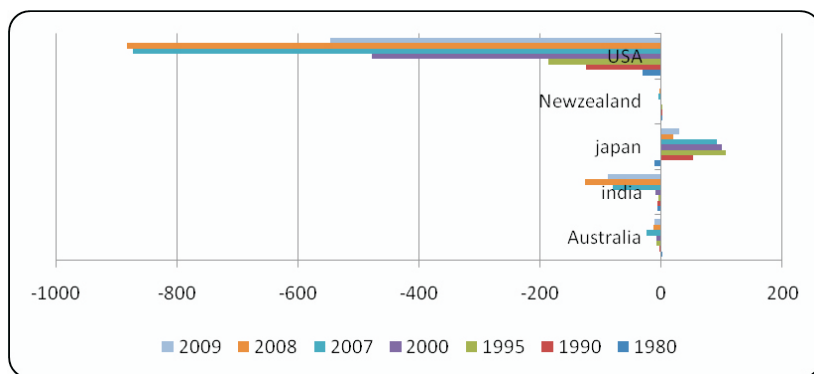


Source: World Trade Profile from WTO, 2010

3.4 TREND IN BALANCE OF AGRICULTURAL TRADE

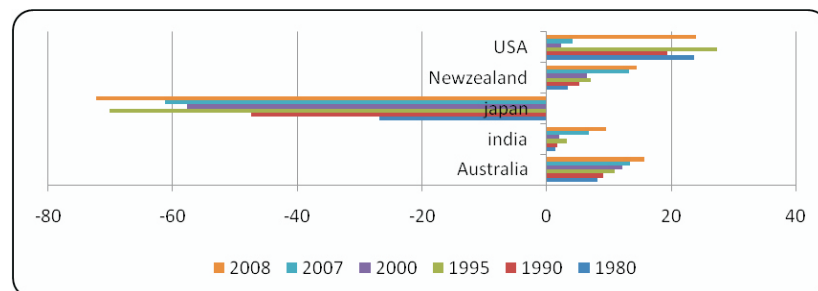
Figure 3.5 reveals the trend in balance of merchandise trade across different countries over the period 1980 to 2009. Except Japan, the balance of merchandise trade was negative for other countries over the same period

Figure 3.5: balance of merchandise trade (US\$ billions)



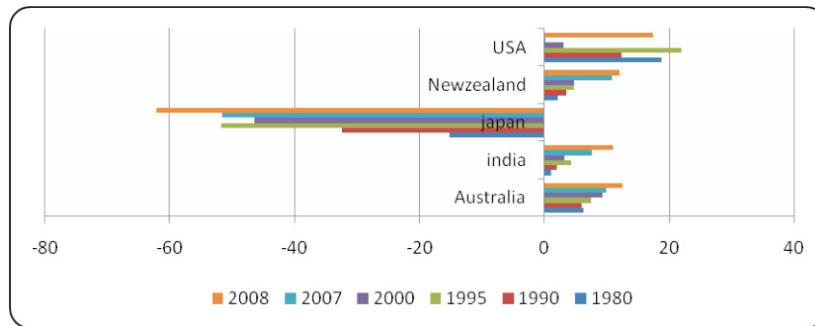
Source: World Trade Profile from WTO, 2010

Figure 3.6: balance of agricultural trade (US\$ billions)



Source: World Trade Profile from WTO, 2010

Figure 3.7: balance of food trade (US\$ billions)



Source: World Trade Profile from WTO, 20102

However, the trend is totally reverse in case of balance in agricultural and food trade. For all the countries, except Japan, the balance in agricultural and food trade is positive (see figure 3.6 and 3.7).

3.5 KEY AGRICULTURAL ITEMS

Table 3.7-3.11 reveals the key agricultural items of select countries for the year 1995 and 2007. Rice, dairy products, sugarcane, wheat, vegetables and fruits are the key production items for India. The ranking of top export and import items changed between 1995 and 2007 due to domestic demand & supply conditions and other factors. For example, wheat was a key export item for India in 1995, but it turned out to be a key import item in 2007. However, agricultural trade is directly affected by domestic support, tariff and non-tariff barriers. Therefore, it is important to know about the trend in domestic support to agriculture sector, tariff and non-tariff barriers in the selected countries. This information is also required to estimate the level of protection to agriculture sector and how developed nations are enjoying artificial comparative advantage through different trade restrictive measures.

Table: 3.7
India: Key Agricultural items

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
1	Rice, paddy	Rice, paddy	Rice Milled	Rice Milled	Palm oil	Palm oil
2	Buffalo milk, whole, fresh	Buffalo milk, whole, fresh	Cake of Soybeans	Cotton lint	Cashew nuts, with shell	Peas, dry
3	Wheat	Cow milk, whole, fresh	Cashew Nuts Shelled	Cake of Soybeans	Cotton lint	Soybean oil
4	Cow milk, whole, fresh	Wheat	Coffee, green	Buffalo meat	Silk Raw	Wheat
5	Sugar cane	Sugar cane	Tea	Sugar Raw Centrifugal	Pulses, nes	Cashew nuts, with shell
6	Vegetables fresh nes	Cotton lint	Oil of Castor Beans	Sugar Refined	Wool, greasy	Beans, dry
7	Groundnuts, with shell	Vegetables fresh ne	Buffalo meat	Maize	Soybean oil	Fatty Acids

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
8	Cotton lint	Groundnuts, with shell	Tobacco, unmanufactured	Cashew Nuts Shelled	Wool Degreased	Cotton lint
9	Indigenous Cattle Meat	Chillies and peppers, dry	Wheat	Tea	Sugar Refined	Rubber Nat Dry
10	Mangoes, mangosteens, guavas	Mangoes, mangosteens, guavas	Flour of Wheat	Sesame seed	Peas, dry	Pulses, nes
11	Chillies and peppers, dry	Bananas	Coffee Extracts	Tobacco, unmanufactured	Rubber Nat Dry	Silk Raw
12	Potatoes	Potatoes	Sugar Refined	Coffee, green	Food Prep Nes	Almonds, with shell
13	Indigenous Buffalo Meat	Soybeans	Cake of Rapeseed	Oil Essential Nes	Sunflower oil	Oil Hydrogenated

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
14	Rapeseed	Hen eggs, in shell	Sesame seed	Oil of Castor Beans	Almonds, with shell	Wool, greasy
15	Okra	Rapeseed	Onions, dry	Chillies and peppers, dry	Fatty Acids	Palm kernel oil
16	Bananas	Chick peas	Groundnuts Shelled	Onions, dry	Beans, dry	Lentils
17	Millet	Millet	Chillies and peppers, dry	Groundnuts Shelled	Natural rubber	Wool Degreased
18	Beans, dry	Tomatoes	Pepper (Piper spp.)	Cake of Rapeseed	Dates	Chick peas
19	Hen eggs, in shell	Onions, dry	Cotton lint	Mangoes, mangosteens, guavas	Cmpd Feed, Oth Or Nes	Dates
20		Okra	Sugar Raw Centrifugal	Anise, badian, fennel, corian.	Skinsdry Sltsheep	Bever. Dist.Alc

Source: FAOSTAT

Table 3.8
USA: Key Agricultural items

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
1	Indigenous Cattle Meat	Cow milk, whole, fresh	Maize	Maize	Coffee, green	Bever. Dist.Alc
2	Cow milk, whole, fresh	Maize	Wheat	Soybeans	Bever. Dist.Alc	Wine
3	Indigenous Chicken Meat	Soybeans	Soybeans	Wheat	Rubber Nat Dry	Beer of Barley
4	Soybeans	Wheat	Cigarettes	Cotton lint	Bananas	Coffee, green
5	Wheat	Cotton lint Hen eggs, in shell	Cotton lint	Chicken meat	Beer of Barley	Meat-Boneless (Beef& Veal)
6	Indigenous Pigmeat	Tomatoes	Meat-Boneless (Beef& Veal)	Pig meat	Wine	Rubber Nat Dry

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
7	Maize	Tomatoes	Chicken meat	Meat-Cattle Boneless (Beef&Veal)	Meat Cattle Boneless (Beef&Veal)	Pastry
8	Cotton lint	Grapes	Hides Wet Salted Cattle	Hides Wet Salted Cattle	Sugar Raw Centrifugal	Beverage Non-Alc
9	Hen eggs, in shell	Potatoes	Tobacco, unmanufactured	Cake of Soybeans	Pastry	Fruit Prp Nes
10	Tomatoes	Rice, paddy	Cake of Soybeans	Almonds Shelled	Tobacco, unmanufactured	Chocolate Prsnes
11	Potatoes	Lettuce and chicory	Gluten Feed & Meal	Tobacco, unmanufactured	Tomatoes	Tomatoes
12	Indigenous Turkey Meat	Sugar beet	Rice Milled	Bever. Dist.Alc	Sugar Confectionery	Sugar Confectionery

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
13	Grapes	Oranges	Pig meat	Pet Food	Cheese of Whole Cow Milk	Bananas
14	Oranges	Apples	Tallow	Sorghum	Fruit Prp Nes	Grapes
15	Rice, paddy	Strawberries	Almonds Shelled	Cigarettes	Pig meat	Olive oil, virgin
16	Apples	Almonds, with shell	Soybean oil	Wine	Cocoa beans	Cheese of Whole Cow Milk
17	Lettuce and chicory	Sorghum	Sorghum	Milk-Skimmed Dry	Chocolate Prsnes	Pig meat
18	Sugar beet	Groundnuts, with shell	Pet Food	Rice Milled	Grapes	Chillies and peppers, green
19	Tobacco, unmanufactured	Maize, green	Offals of Cattle, Edible	Pastry	Olive oil, virgin	Tobacco, unmanufactured
20	Maize, green	Onions, dry	Tobacco Products Nes	Chocolate Prsnes	Coconut (copra) oil	Sugar Raw Centrifugal

Source: FAOSTAT

Table 3.9
Japan: Key Agricultural items

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
1	Rice, paddy	Rice, paddy	Cigarettes	Food Prep Nes	Pork	Maize
2	Cow milk, whole, fresh	Hen eggs, in shell	Food Prep Nes	Cigarettes	Meat-Boneless (Beef & Veal)	Pork
3	Hen eggs, in shell	Cow milk, whole, fresh	Food Wastes	Pastry	Maize	Cigarettes
4	Indigenous Chicken Meat	Vegetables fresh nes	Flour of Wheat	Beverage Non-Alc	Cigarettes	Meat-Boneless (Beef & Veal)
5	Indigenous Pigmeat	Potatoes	Skinsdry Sltd pigs	Apples	Soybeans	Rubber Nat Dry
6	Indigenous Cattle Meat	Cabbages and other brassicas	Pastry	Skinsdry Sltd pigs	Wheat	Soybeans

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
7	Vegetables freshness	Onions (inc. shallots), green	Beer of Barley	Flour of Wheat	Chicken meat	Wheat
8	Potatoes	Tangerines, mandarins, clem.	Sugar Confectionery	Rice Fermented Beverages	Bever. Dist.Alc	Wine
9	Cabbages and other brassicas	Apples	Rice Fermented Beverages	Food Wastes	Coffee, green	Food Prep Nes
10	Tangerines, mandarins, clem.	Onions, dry	Bever. Dist.Alc	Sugar Confectionery	Rubber Nat Dry	Meat of Chicken Canned
11	Apples	Strawberries	Bread	Chocolate Prsnes	Cotton lint	Coffee, green
12	Onions, dry	Sugar beet	Vegetables Preserved Nes	Bever. Dist.Alc	Fruit Prp Nes	Rapeseed
13	Strawberries	Lettuce and chicory	Macaroni	Soya Sauce	Food Prep Nes	Cheese of Whole Cow Milk
14	Lettuce and chicory	Tomatoes	Soya Sauce	Macaroni	Rapeseed	Forage Product

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
15	Tomatoes	Carrots and turnips	Tobacco, unmanufactured	Tea	Sugar Raw Centrifugal	Fruit Prp Nes
16	Sugar beet	Spinach	Pears	Food Prep, Flour,Malt Extract	Offals of Cattle, Edible	Chicken meat
17	Spinach	Mushrooms and truffles	Dried Mushrooms	Bread	Tobacco, unmanufactured	Pet Food
18	Cucumbers and gherkins	Cucumbers and gherkins	Infant Food	Beer of Barley	Pet Food	Bever. Dist.Alc
19	Carrots and turnips	Tea	Beverage Non-Alc	Coffee Extracts	forage Products	Bananas
20	Tobacco, unmanufactured	Grapes	Sesame oil	Sesame oil	Wine	Cake of Soybeans

Source: FAOSTAT

Table 3.10
Australia: Key Agricultural items

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
1	Indigenous Cattle Meat	Cow milk, whole, fresh	Meat-CattleBoneless (Beef & Veal)	Wheat	Bever. Dist.Alc	Food Prep Nes
2	Wheat	Wheat	Wool, greasy	Meat-CattleBoneless (Beef&Veal)	Coffee, green	Bever. Dist.Alc
3	Cow milk, whole, fresh	Wool, greasy	Wheat	Wine	Tobacco, unmanu-factured	Wine
4	Indigenous Sheep Meat	Sugar cane	Sugar Raw Centrifugal	Wool, greasy	Cheese of Whole Cow Milk	Beer of Barley
5	Wool, greasy	Grapes	Wool Degreased	Sheep meat	Pastry	Pastry

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
6	Sugar cane	Cotton lint	Cotton lint	Sugar Raw Centrifugal	Chocolate Prsnes	Cheese of Whole Cow Milk
7	Cotton lint	Barley	Sheep meat	Cheese of Whole Cow Milk	Rubber Nat Dry	Chocolate Prsnes
8	Indigenous Chicken Meat	Rapeseed	Cheese of Whole Cow Milk	Cotton lint	Cake of Soybeans	Cake of Soybeans
9	Barley	Potatoes	Milk Skimmed Dry	Barley	Fruit Prp Nes	Olive oil, virgin
10	Grapes	Chick peas	Wine	Milk Skimmed Dry	Palm oil	Pork
11	Indigenous Pigmeat	Hen eggs, in shell	Barley	Milk Whole Dried	Wine	Pig meat
12	Rice, paddy	Oranges	Rice Milled	Offals of Cattle Edible	Sugar Confectionery	Beverage Non-A/c

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
13	Rapeseed	Apples	Milk Whole Dried	Skins With Wool Sheep	Coffee Extracts	Fruit Prp Nes
14	Potatoes	Cottonseed	Pet Food	Food Prep Nes	Olive oil, virgin	Pet Food
15	Chick peas	Mushrooms and truffles	Tallow	Wool Degreased	Wool Degreased	Sugar Confectionery
16	Hen eggs, in shell	Tomatoes	Skins With Wool Sheep	Malt	Tea	Coffee, green
17	Apples	Lettuce and chicory	Cattle meat	Tallow	Cocoa Butter	Coffee Extracts
18	Oranges	Nuts, nes	Butter Cow Milk	Pet Food	Pet Food	Palm oil
19	Peas, dry	Carrots and turnips	Offals of Cattle, Edible	Hides Wet Salted Cattle	Soybeans	Tobacco, unmanufactured
20	Tomatoes	Peaches and nectarines	Chocolate Prsnes	Alfalfa for forage and silage	Cashew Nuts Shelled	Vegetable Frozen

Source: FAOSTAT

Table 3.11
New Zealand: Key Agricultural items

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
1	Cow milk, whole, fresh	Cow milk, whole, fresh	Sheep meat	Milk Whole Dried	Sugar Raw Centrifugal	Food Prep Nes
2	Indigenous Cattle Meat	Wool, greasy	Meat-CattleBoneless (Beef&Veal)	Sheep meat	Bever. Dist.Alc	Wine
3	Indigenous Sheep Meat	Kiwi fruit	Wool Degreased	Meat-CattleBoneless (Beef&Veal)	Wine	Pastry
4	Wool, greasy	Apples	Milk Whole Dried	Milk Skimmed Dry	Wheat	Bever. Dist.Alc
5	Apples	Grapes	Butter Cow Milk	Cheese of Whole Cow Milk	Pet Food	Wheat
6	Kiwi fruit	Potatoes	Cheese of Whole Cow Milk	Butter Cow Milk	Bananas	Chocolate Prsnes

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
7	Indigenous Chicken Meat	Hen eggs, in shell	Apples	Kiwi fruit	Chocolate Prsnes	Pork
8	Onions (inc. shallots), green	Game meat	Milk Skimmed Dry	Wine	Coffee, green	Cake of Palm Kernel
9	Potatoes	Onions, dry	Skins Nes Sheep	Food Prep Nes	Skins With Wool Sheep	Pet Food
10	Indigenous Pigmeat	Onions (inc. shallots), green	Wool, greasy	Prod.of Nat.Milk Constit	Sugar Confectionery	Sugar Raw Centrifugal
11	Game meat	Pumpkins, squash and gourds	Kiwi fruit	Wool Degreased	Soybean oil	Sugar Confectionery
12	Grapes	Wheat	Game meat	Apples	Pastry	Bananas
13	Tomatoes	Vegetables freshness	Tallow	Food Prep,Flour, Malt Extract	Sugar Refined	Fruit Prp Nes

Ranking	Production		Export		Import	
	1995	2007	1995	2007	1995	2007
14	Pumpkins, squash and gourds	Tomatoes	Onions (inc. shallots), green	Milkdry Buttermilk	Fruit Prp Nes	Beverage Non-Alc
15	Hen eggs, in shell	Peas, green	Cattle meat	Wool, greasy	Breakfast Cereals	Breakfast Cereals
16	Wheat	Maize, green	Vegetable Frozen	Infant Food	Tobacco, unmanufactured	Cake of Soybeans
17	Maize, green	Natural honey	Hides Wet Salted Cattle	Game meat	Grapes	Cigarettes
18	Peas, green	Mushrooms and truffles	Milkdry Buttermilk	Chocolate Prsnes	Ice Cream and Edible Ice	Food, Waste, Prep. for Feed
19	Vegetables freshness	Avocados	Offals of Cattle, Edible	Onions (inc. shallots), green	Tea	Beer of Barley
20	Cauliflowers and broccoli	Carrots and turnips	Pumpkins, squash & gourds	Offals of Cattle, Edible	Orange juice, single strength	Coffee Extracts

Source: FAOSTAT

Chapter 4

Domestic Support to Agriculture Sector

4.1 INTRODUCTION

The AoA established a programme for gradual reform of trade in agriculture by establishing “a fair and equitable market-oriented agriculture trading system.”. Over the years, while GATT was able to develop rules for subsidies on industrial products, it failed to bring under discipline subsidies granted to the agriculture sector. During the Uruguay Round, in the AoA negotiations, the issue of input subsidies also came into the limelight due to subsidy limiting commitments. The AoA, for the first time made a systematic effort to lay down rules for subsidies on agricultural products. The domestic support or Aggregate Measurement of Support (AMS) is the annual level of support in monetary terms extended to the agricultural sector. The key aim of reducing domestic support is to correct trade distortions with a view to promote efficient allocation and use of world resources. All domestic support measures, except exempt measures, provided in favour of agricultural producer are to be measured as the ‘Aggregate Measurement of Support’ (AMS). The subsidies provided to farmers include:

- (a) Non-Product Specific subsidies such as those provided for irrigation, electricity, credit, fertilizers, seed etc.
- (b) Product Specific subsidies, which are, calculated as domestic prices minus international reference price.

The sum of these two is termed as Aggregate Measurement of Support (AMS) also called Amber Box. The Amber Box

subsidies are considered to be trade distorting and were entitled to progressive reduction commitments, base year being 1986-88. The maximum limit for the total AMS is fixed at 5 percent of the value of domestic agricultural output for developed and 10 percent for developing countries. Under the Uruguay Round, commitments, the domestic support exceeding the maximum limit in the base year 1986-88 was to be reduced by 13.3 percent for developing countries and 20 percent for developed countries over an implementation period of six year for developed countries and ten years for developing countries. However, all the direct or indirect government support provided to encourage agricultural and rural development, investment subsidies and agricultural input subsidies provided to low income farmers in developing countries are exempted from the reduction commitments. Direct payments under production-limiting programmes (some times dubbed as Blue Box) are also exempted from reduction. There are some subsidies, which are required in the long term interest of maintaining natural resources, environmental protection and improving the farmer's income. These are not to be included in the AMS and are grouped in 'Green Box' and 'Blue Box'. However, these should meet the fundamental requirement of having minimal trade distorting effects. Despite the above provisions on domestic support, the developed nations are providing huge domestic support to their agriculture as is evident from box No. 4.1.

Box 4.1
Level of Support in OECD Nation

1. In 2009, support to producers in OECD countries was estimated at USD 253 billion or EUR 182 billion, as measured by the Producer Support Estimate (PSE). This is equivalent to 22% of aggregate gross farm receipts (%PSE), slightly up from 21 % in 2008, and back to the 2007 level.
2. Despite a long term reduction in both the level of support and the share of potentially most distorting forms of support, the latter policies still dominate in the majority of OECD countries. Support based on output (including border protection) and support based on unconstrained use of variable inputs accounted for more than a half of the OECD aggregate PSE in 2007-09.
3. Some countries have taken clear steps towards reducing the level of support and/or implementing more decoupled support, while others have lagged behind. The level of producer support (expressed as % of producer revenues) in OECD countries in 2007-09 ranged widely: it was less than 1 % in New Zealand, 4 % in Australia, 9 % in the United States, 12 % in Mexico, 17 % in Canada, 23 % in the European Union, 34 % in Turkey, 47 % in Japan, 52 % in Korea, 53 % in Iceland, 58 % in Switzerland and 61 % in Norway. The structure of support also varies considerably among countries. Among the countries with the highest level of support the share of the potentially most distorting policies represents around 90 % in Japan and Korea, it is around 70 % in Iceland and around a half in Norway and Switzerland.

Source: *Agricultural Policies in OECD Countries: At a Glance (2010)*

4.2 DOMESTIC SUPPORT IN INDIA

Table: 4.1
Aggregate Measurement of Support

India (US\$ million)	1995	1996	1997
Coarse cereals (bajra, jowar, maize and barley)	(-4,530)	(-1.5)	(-2.9)
Cotton	(-2,106)		
Groundnut	(-1,809)		
Jute	(-388)		
Pulses (gram, urad, moong and tur)	(-1,706)		
Rapeseed and mustard toria	(-1,689)		
Rice	(-7,577)	(-1,321.3)	(-1,479.9)
Soya bean	(-192)		
Sugar cane	184.0		
Tobacco	(-181)		
Wheat	(-9,625)	(-1,280.8)	(-1,266.4)
Non-product-specific support	5,772.1	930.3	1,003.5

Source: WTO Notification

Table 4.2
Composition of Domestic Support(million US\$)

	1995	1996	1997
AMS	<i>de minimis</i>	<i>de minimis</i>	<i>de minimis</i>
Blue box	0	0	0
Green Box	2196	2503	2873

Source: WTO Notification

India has made two notifications on domestic support for the year 1995-96, 1996-97 and 1997-98 (see WTO notification G/AG/N/IND/1 and G/AG/N/IND/2). The product specific subsidy was negative for all commodities (except sugarcane) during 1995-1997. The non-product specific subsidy was also within the de minimis limit (see table 4.1 and 4.2). These notifications show that India has no obligation to reduce domestic support to agriculture sector.

4.3 DOMESTIC SUPPORT IN USA

United States of America, as a WTO member had undertaken commitments to reduce the domestic support on agriculture. It would be observed that the United States enjoys an artificial comparative advantage in agriculture, due to huge domestic support and export subsidy given by its government. On the other hand it imposes a high tariff and non-tariff barriers on agricultural products to protect its farmers. Total domestic support as a percentage of total value of production varied between 40.08 and 27.58 percent during 1995 to 2007 (See Table 4.3& 4.4).

The USA is providing huge product specific support to corn, cotton, dairy, peanuts, soybeans, wheat and rice (See table 4.5). The green box subsidy accounted for the major share in total support to agriculture sector. It is noteworthy that the domestic support measures considered to have no or minimal trade distorting effects are categorized as green box (GB) measures. However, the so-called 'decoupled' programmes under GB could distort trade as it generate wealth and risk effects. This problem is further compounded as these payments are not transitory measures, and are permanently incorporated into the cash flows of farmers, thereby increasing their creditworthiness and serving as an instrument for hedging against risk. In addition, the practice of updating base acres, number of heads and payment yields tend to raise expectations of future assistance thereby influencing their future decisions. Thus the competitive advantage of U.S agricultural products in global markets is based on high domestic support to agriculture sector.

Table 4.3:
Trend in Domestic Support to Agriculture Sector in USA
(Million US\$)

	1995	1999	2000	2004	2006	2007	Ex. Growth Rate (1995-2007))
Green box Subsidy (1)	46,033	49,749	50,057	67,425	76,035	76,162	4.43
Product limiting Subsidy (2)	7,030	0	0	0	0	0	—
Product specific AMS(with <i>de minimis</i>) (3)	6,311	16,891	16,906	12,309	7,913	6,497	1.56
Product specific AMS(without <i>de minimis</i>) (4)	6,214	16,862	16,843	11,629	7,742	6,260	1.29
Non-product (with <i>de minimis</i>) (5)	1,543	7,406	7,278	5,778	3,430	2,023	8.58
Ams non-product (without <i>de minimis</i>) (6)	0	0	0	0	0	0	—

	1995	1999	2000	2004	2006	2007	Ex. Growth Rate (1995- 2007))
Total AMS (4+6)	6,214 (7)	16,862	16,843	11,629	7,742	6,260	1.29
Total support (1+2+3+5)	60,918 (8)	74,046	74,241	85,512	87,378	84,682	3.68
Value of Total Product	190,110	184,735	189,520	235,688	246,425	307,041	2.98

Source: WTO notifications.

Table 4.4
Trend in Domestic Support to Agriculture Sector in USA
(Percentage)

	1995	1999	2000	2004	2006	2007
Green box Subsidy (1)	24.21	26.93	26.41	28.61	30.86	24.81
Product limiting Subsidy (2)	3.70	0.00	0.00	0.00	0.00	0.00
Product specific AMS (with <i>de minimis</i>) (3)	3.32	9.14	8.92	5.22	3.21	2.12
Product specific AMS (without <i>de minimis</i>) (4)	3.27	9.13	8.89	4.93	3.14	2.04
Non-product (with <i>de minimis</i>) (5)	0.81	4.01	3.84	2.45	1.39	0.66
Ams non-product (without <i>de minimis</i>) (6)	0.00	4.00	5.00	9.00	11.00	12.00
Total AMS (4+6) (7)	3.27	9.13	8.89	4.93	3.14	2.04
Total support (1+2+3+5) (8)	32.04	40.08	39.17	36.28	35.46	27.58

Source: WTO notifications

Table 4.5
USA: Product-Specific Support
(US\$ million)

	1995	1996	1997	1998	1999	2000	2001	2006	2007
Barley	0.9	0.7	3.7	84.3	39.7	69.8	16.4	9.48	0.04
Corn	32.1	28.3	150.0	1,533.5	2,554.2	2,756.7	1,269.7	18.61	17.42
Cotton	32.0	3.4	465.6	934.7	2,353.1	1,049.8	2,810.1	1,365.18	207.91
Dairy	4,655.2	4,690.6	4,455.6	4,560.4	4,660.1	5,070.4	4,483.3	5,044.12	5,016.54
Peanuts	414.6	299.0	305.8	339.7	349.1	437.7	304.6	18.26	2.57
Soybeans	16.3	13.8	45.3	1,275.3	2,856.1	3,606.4	3,610.0	64.83	5.22
Sugar	1,090.9	908.0	1,011.5	1,055.5	1,207.3	1,177.5	1,061.0	1,279.63	1,235.84
Wheat	5.0	8.2	36.5	515.6	973.9	847.2	189.4	2.27	N.A.

4.4 Domestic Support in Japan

Japan is providing domestic support through AMS, blue and green box (see table 4.6). The green box subsidy accounted for the major share in total support to agriculture sector. The product-specific subsidy is mainly concentrated on beef, meat of swine, milk, soybeans, sugar, sugar and wheat (see table 4.7)

Table: 4.6
Domestic Support in Japan (¥ billion)

Subsidy Type/Year	1995	1999	2000	2005	2006
Green Box	3169	2686	2595	1916	1802
Blue Box	N.A.	93	93	65	70
Current Total AMS	3508	748	709	593	571

Source: WTO notification

Table 4.7
JAPAN: Product-Specific Support (¥ billion)

Japan	1995	1996	1997	1998	1999	2000	2001	2002	2005	2006
Barley	24.5	26.0	21.1	15.8	22.0	11.4	10.7	11.0	10.0	11.1
Beef & veal	206.4	171.0	166.4	165.6	168.0	147.4	193.4	226.1	110.1	94.0
Meat of swine	323.3	291.8	285.8	280.5	264.7	254.6	252.2	252.6	251.9	253.4
Milk	151.8	153.3	149.6	147.9	142.2	130.4	36.0	53.6	26.9	28.5
Rice	2,661.5	2,557.4	2,397.5	41.9						
Soya-beans	1.7	2.6	4.9	6.9	9.8	15.6	18.5	26.6	26.4	25.5
Starch	21.6	17.6	20.8	20.4	16.4	15.7	17.7	18.8	15.1	13.6
Sugar	58.9	49.0	53.8	59.8	54.6	54.0	55.2	55.0	57.3	51.8
Wheat	55.3	59.6	69.3	68.2	69.3	77.8	81.6	84.9	94.6	92.6

Source: WTO notification

4.5 Domestic Support in Australia

In case of Australia, product-specific support is highly concentrated on dairy products (see table 4.8). Agriculture sector is mainly supported by various programmes under green box and followed by Amber Box. Australia is not giving any support under blue box.

Table: 4.8
Domestic Support in Australia

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Subsidy Type/Year													
Green Box	917	945	1256	1305	1310	1292	1408	1944	1990	1825	2089	2349	2772
Blue Box	0	0	0	0	0	0	0	0	0	0	0	0	0
Current Total AMS	152	144	132	120	62	214	308	213	208	207	207	207	207

WTO notification

Table 4.9
Australia: Product-Specific Support

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2007
Australia (\$A million)										
Milk	151.7	144.2	131.6	119.7	61.8	208.9	303.7	212.8	207.8	206.74
Sugar	0	0	0	0	0	16.1	9.0	17.7	1.4	0
Tobacco	0	0	0	0	0	4.7	4.7	0	0	
Wheat		2.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0

WTO notification

4.6 Domestic Support in New Zealand

Agriculture sector in New Zealand is receiving support through various programmes under green box (table: 4.10). New Zealand is not providing any support through blue box and its current AMS is below the de minimis level.

From the above discussion, it is obvious that India has no obligation to reduce domestic support under the Agreement on Agriculture. However, the picture is totally different in developed nations like USA, Japan and Australia, as these nations are providing support to agriculture sector through various boxes.

(Million NZ\$)

[illegible]

Chapter 5

Tariff Barriers to Agriculture Sector

5.1 INTRODUCTION

The tariff barriers adopted by the developed nations are a major concern not only for Indian exporters but for other developing countries as well. As seen in the previous chapter, the developed nations are giving huge support to their agriculture sector and thus distorting the international trade. The competitiveness and market access opportunities for developing countries to a great extent depend on the tariffs imposed by developed nations. The developed countries are adopting various tariff and non-tariff barriers to protect their agriculture sector. The objective of this chapter is to assess the tariff and non-tariff barriers in developed nations, which are main concern for the developing nations like India.

5.2 USA

The final bound rate in agriculture sector is 4.8 percent, which is higher than non-agriculture sector (3.3 percent). The MFN applied rate in agriculture sector is more than the bound rate. The final bound rate is high for dairy, sugar and beverages & tobacco products. The applied tariff rate for dairy and sugar is more than the bound rate.

Table: 5.1
Tariff Rates Imposed by USA

Sector	Final bound	MFN applied
Total	3.5	3.5
Agriculture	4.8	5.3
Non-agriculture	3.3	3.3

Source: World Tariff Profiles 2008

Table: 5.2
Tariff Rate on Specific Commodities

Commodities	Final bound	MFN applied
Dairy product	20.8	23.0
Sugar	13.4	16.1
Beverages & Tobacco	16.8	15.5

Source: World Tariff Profiles 2008

5.3 JAPAN

The final bound rate in agriculture sector is 24 percent, whereas, for non-agriculture sector it is only 2.5 percent. This implies that agriculture sector is ten times more protected than the non-agriculture sector. Even the applied tariff rate is too much high in comparison with non-agriculture sector. The final bound rate is very high for dairy (134.7 percent), Cereals (86.3 percent) and sugar (47 percent). The applied tariff rate for dairy, fruits and sugar is more than the bound rate.

Table: 5.3
Tariff Rates Imposed by Japan

Sector	Final bound	MFN applied
Total	5.4	5.4
Agriculture	24.0	23.6
Non-agriculture	2.5	2.6

Source: World Tariff Profiles 2008

Table: 5.4
Japan: Tariff Rate on Specific Commodities

Commodities	Final bound	MFN applied
Dairy products	134.7	169.3
Fruit, vegetables, plants	10.8	12.7
Coffee, tea	14.5	15.6
Cereals & preparations	86.3	72.0
Sugars and confectionery	47.1	24.5
Beverages & tobacco	14.6	14.4

Source: World Tariff Profiles 2008

5.4 AUSTRALIA

The final bound rate in agriculture sector is 3.3 percent which is lower than the bound rate in non-agriculture sector (11 percent). The applied rate in agriculture sector is also very low (1.3 percent). The bound tariff rate for dairy, coffee, sugar and tobacco is more than the average bound rate on agriculture sector. The bound and the applied rate in Australia is lower than the rates prevalent in the USA and Japan.

Table: 5.5
Tariff Rates Imposed by Australia

Sector	Final bound	MFN applied
Total	9.9	3.5
Agriculture	3.3	1.3
Non-agriculture	11.0	3.9

Source: World Tariff Profiles 2008

Table: 5.6
Australia: Tariff Rate on Specific Commodities

Commodities	Final bound	MFN applied
Dairy products	4.7	4.3
Coffee, tea	3.9	1.0
Sugars and confectionery	7.0	1.9
Beverages & tobacco	10.1	3.6

Source: World Tariff Profiles 2008

5.5 NEW ZEALAND

The final bound rate in agriculture sector is 5.7 percent, whereas, for non-agriculture sector it is 10.6 percent. The applied tariff rate in agriculture sector is only 1.4 percent. However, the final bound rate for dairy products, coffee, cereals and sugar is higher than the average bound rate for agriculture sector.

In this chapter, the tariff barriers adopted by selected developed nations have been identified. The bound and the applied rate in Australia and New Zealand are lower than the rates prevailing in the USA and Japan. For specific products, the bound and applied rate is too high in the selected developed nations.

Table: 5.7
Tariff Rates Imposed by New Zealand

Sector	Final bound	MFN applied
Total	10.0	2.2
Agriculture	5.7	1.4
Non-agriculture	10.6	2.3

Source: World Tariff Profiles 2008

Table: 5.8
New Zealand: Tariff Rate on Specific Commodities

Commodities	Final bound	MFN applied
Dairy products	10.1	1.4
Coffee, tea	8.9	2.3
Cereals and preparations	10.5	2.9
Sugars and confectionery	12.0	3.0

Source: World Tariff Profiles 2008

Chapter 6

Non-Tariff Barriers to Agriculture Sector

6.1 INTRODUCTION

As tariffs have been subjected to reduction, it is observed that many countries are resorting to non-tariff measures like SPS (Sanitary and phytosanitary) measures and TBT (Technical Barriers to Trade) measures. The SPS Agreement applies to all measures which have the purpose to protect, within the territory of a Member, (1) animal and plant life or health from the entry, establishment or spread of pests, disease-carrying or disease-causing organisms; (2) human or animal life or health from food-borne risks (risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs); (3) human life or health from diseases carried by animals, plants or products thereof; (4) a Member's territory from other damage arising from the entry, establishment or spread of pests.

The Agreement on Technical Barriers to Trade (TBT Agreement) covers technical regulations (which are mandatory requirements), standards (which are not mandatory) and conformity assessment procedures (procedures to verify compliance with technical regulations and/or standards). The two Agreements have some common elements, including the requirement that a measure be the least trade restrictive; disciplines regarding control and inspection procedures (Conformity Assessment Procedures in TBT parlance); basic obligations of non-discrimination and similar requirements for the advance notification of proposed measures and the creation

of information offices (so-called transparency requirements). Sanitary and phytosanitary measures may be imposed only to the extent necessary to protect human, animal and plant health, and on the basis of scientific information. Governments may, however, introduce TBT regulations when necessary to meet a number of objectives, such as national security, the prevention of deceptive practices, protection of human, animal or plant life or health, or the environment, among others. The number of SPS notifications has increased from 199 in 1995 to 1108 notifications in 2009. Similar trend has been observed in case of TBT notifications from 375 in 1995 to 1914 in 2009. The objective of this chapter is to identify the SPS and the TBT measures imposed by selected developed nations.

6.2 USA

The USA has imposed many non-tariff measures on agriculture products (see table 6.1). These measures are based on health, contamination standards, rules for genetically modified organism, quality standards, labelling etc. Many products like vegetables, fruits, processed foods, sugar, oils and cereals etc are covered under these measures.

Table 6.1
Non-tariff measures (NTMs) imposed by USA on
Agricultural Products (1995 to 2009)

Measures	Application	Product
Sanitary and Phytosanitary Measures		
Health Standards	Animal health, Human Health	Bird's Egg, Mosses and lichens, Vegetables, Edible Fruits and nuts, Spices, Cereals, Oil Seeds, Cosmetics
Contamination Standards	Improve safety of meat and poultry products	Processed food, Modified Starch, Animal Feed, Beverages, Sugar, Edible Oils, Plant Extracts, Natural Honey, Meat of Bovine Animals, Tobacco
Rules for genetically modified organisms	Plant protection, Plant health	Processed food, Mild cereals, Oil Seeds
TBT/ SPS		
Quality standards	Protection of consumers and human health and safety To establish uniform standards of purity, quality, and fitness for consumption of all kinds of tea imported into the United States	Meat of Bovine Animals, Bird's Egg, Mosses and lichens, Vegetables, Edible Fruits and nuts, Spices, Oil Seeds, Processed food, Plant Extracts, Cosmetics Spices

Measures	Application	Product
Technical Barrier to Trade		
Labelling and packing rules	Protection of human life and health; To provide consumers with information that will assist them in achieving their dietary goals Labelling	Mild cereals Processed food, Chemical Products Beverages
Bans, monitoring and licensing requirements	To add a new provision to the official standards for flue-cured tobacco	Tobacco
Environmental protection	Environmental protection	Tobacco

Source: Centre for WTO Studies online web portal on TBT and SPS measures, as on 05-01-2010

6.3 AUSTRALIA

Australia has also imposed many non-tariff measures on agriculture product (see Table 6.2). These measures are based on animal protection, pest control, health, contamination standards, quality standards, quality standards, labelling etc. Many products like live cattle, beef, vegetables, fruits, oils and cereals etc. are covered under these measures.

Table 6.2
Non-tariff measures (NTMs) Imposed by Australia on
Agricultural Products (1995 – 2009)

Measures	Application	Product
Sanitary and Phytosanitary Measures		
Animal Protection	Animal health	Horses, Live cattle, Pig meat, Uncooked, dead fresh water crayfish,
Health Standards	Consumer Health and Safety	Alcoholic and non-alcoholic carbonated and non-carbonated beverages, Infant Formula, Potatoes, Dairy products,
Contamination Standards	Food safety, Human health and safety	Beef and beef-based products, defined as tissue from cattle, buffalo and bison, Foods for infants and young children, apart from human milk and/or infant formula products, Cereals and cereal products, Grapes, Meat and meat products, Orange juice and unpasteurised juice, Pig and poultry products (including egg products), beef and dairy products, Processed corn food, Processed foods, Ready-to-eat cassava chips (snack foods), Soy sauces, Sugar derived from sugar beet, Food additives, Fish and fish products, Vinegar and related

Measures	Application	Product
		products, Formulated meal replacements and supplementary foods
Rules for genetically modified organisms	Plant Protection and Health	Fruits and Vegetables, Shipping containers entering Australia, Plant seeds, Apples, Mangos, Green hard Bananas
TBT/SPS		
Quality standards	Consumer Health and Safety, Food safety	Alcoholic and non-alcoholic carbonated and non-carbonated beverages, Foods derived from gene technology, Grapes, Grated Cheese, Infant Formula, Processed corn food, Processed foods
Technical Barrier to Trade		
Labelling and packing rules	Consumer Health and Safety, Food safety	All foods, Edible fats and oils (sunflower oil), Foods produced using gene technology, Non-alcoholic beverages, Electrolyte drinks, Artificial sweetening substances, All packaged foods, Foods/Processed Foods - 'Sports Foods', Wine, Formulated caffeinated beverages, Labelling of food not for retail sale, Cocoa and cocoa products
Bans, monitoring and licensing requirements	Alignment with current food technology	Flavourings and flavour enhancers, Soft drinks and fruit drinks
Environmental protection	Facilitate trade and consistency, To facilitate trade	Edible coatings on cheese, Baked goods

Source: Centre for WTO Studies online web portal on TBT and SPS measures, as on 05-01-2010

6.4 JAPAN

Japan also maintains several non-tariff measures on agriculture products (see table 6.3). These measures are based on animal protection, pest control, health, contamination standards, quality standards, and labelling etc. The list of these measures covers a wide range of agricultural products as shown in table 6.3.

Table 6.3
Non-tariff measures (NTMs) Imposed by Japan on
Agricultural Products (1995 - 2009)

Measures	Application	Product
Sanitary and Phytosanitary Measures		
Animal Protection	Animal health	Animals and animal products, Invasive alien species (IASs), Living modified organisms (LMOs), Destomycin A and Bacillus cereus as feed additives
Health Standard	Consumer Health and Safety	Muscle cattle, pigs, sheep, horse, chickens-ducks-turkeys; Fat cattle, pigs, sheep, horse, chickens-ducks-turkeys; Liver cattle, pigs, sheep-horse, chickens-ducks-turkeys; Kidney cattle, pigs, sheep-horse, chicken-ducks-turkeys; Milk; Egg;
Contamination Standard	Food safety, Human health and safety, Public health	Chicken and broiler, Natural cheese, Nuts, Herbs (including dried herbs), Globefishes, Pork, Powdered juice, Bakery products, Pulses, Frozen processed food served without heating, Processed cottonseed products, Vermicelli, macaroni

Measures	Application	Product
		<p>and similar preparations, Vegetables, Fish paste products, Processed chlorellas, Spices (including raw materials), Food put into a tablet form, Vegetable oils, Processed fruit in syrup, Sujiko, Processed spirulina, Soups, Soft drinks, Sauces, Items, Seasonings, Chocolates, Pickles (pickles made from vegetables only), Tilapia, Food additives (only for these specifications and standards are provided), Maize (corn), Reindeer meat (including processed reindeer meats), Eel (including processed eels), Processed shrimps, prawns and crabs (excluding fishpaste products), Shrimps and prawns , (cultured shrimps and prawns only), Shelled molluscas (including processed shelled molluscas), Fruits, Fruit paste, Candies, Food in capsule, Equipment and container - packages made of glass, ceramic, enamelled, tin, rubber and synthetic resin, Dried fruits, Dried snake meats, Dried frozen vegetables, Agar, Mashrooms (including dried mashrooms), Beef and veal Jams; fats and oil, Edible vegetables and certain roots and tubers, Edible fruit and nuts, Coffee , Tea , Ginger , Cereals , Oil seeds and oleaginous fruits, miscellaneous grains, seeds and fruit , Cocoa beans, genetically modified potatoes, Processed vegetable products (cancellation of</p>

Measures	Application	Product
		confinement to dried vegetables and pickles), honey and its processed products
Pest Controls	Animal and Plant Protection	Plants and plant products, Live terrestrial mammal, live birds and carcasses of rodents, Prairie dogs
TBT/ SPS		
Quality Standards	Consumer Health and Safety, Food safety, Protect consumers' interest	All Food and Food Additives, Seeds and seedlings of the agricultural crops used for foods and feeds among the plant species of the designated seeds and seedlings., Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage, potatoes, fresh or chilled: Seed , Sweet corn , Dried leguminous vegetables for sowing, Rye: Seed , Oats: Seed , Maize(corn): Seed , Grain sorghum: Seed , Buckwheat: Seed , Other cereals: Seed "Seeds and seedlings of a kind used for sowing", Sweet corn () and maize (corn)
Technical Barrier to Trade		
Labelling and packing rules	Consumer Health and Safety, Food safety	Alcoholic beverages, Bacons , Worcester Sauce , Pressed Ham, Mixed Pressed Ham, Kamaboko (boiled fish paste) of Special Packing , Sausage , Mixed Sausage , Chilled Hamburger Steak , Prepared Frozen Foods , Hams , Soy milk,

Measures	Application	Product
		Prepared soy milk and Soy milk beverage , Chilled Meat Ball , Flavoured kamaboko (boiled fish paste) , Pickled Agricultural Products , Instant Boiled Noodle, Bread and bun , Canned livestock products and bottled livestock products, Carrot juice, mixture of carrot juice, Consumer products, Dehydrated Soup, Dried Japanese noodles, Dried shiitake mushroom (hoshi-shiitake), Frozen vegetable foods, Fructose, Fruit juices, Garlic High lysine corn and processed foods containing it as the main ingredient, Husked (Brown) rice and Milled Rice, Jam, Pickled agricultural products, Prepared frozen foods, Processed foods (green tea beverage , fried peanut, Refined lard, Shiitake mushroom, Shortening, Snow peas, Soy milks, Soy sauce, Vegetable oils and fats, Rice, rice products and products
Trade Facilitation	Ensure safety of drugs and others.	Drugs, quasi-drugs, cosmetics and medical devices
Effective use of Resources	Environmental Measures	Promote the effective use of resources and reduce wastes.

Source: Centre for WTO Studies online web portal on TBT and SPS measures, as on 05-01-2010

6.5 NEW ZEALAND

As the case with other developed nations, New Zealand has also used non-tariff barriers to protect its agriculture sector. These measures are based on animal protection, pest control, health, contamination standards, quality standards, and labelling etc. Wide range of agricultural products are covered under these measures (See table 6.4).

Table 6.4
Non-tariff measures (NTMs) Imposed by New Zealand on
Agricultural Products (1995 – 2009)

Measures	Application	Product
Sanitary and Phytosanitary Measures		
Animal Protection	Animal health	All animal products: Beef (fresh, chilled, frozen, dried); all edible offal; all processed meats and meat products, including canned products; blood; sausage casings; industrial margarine; bone products for animal consumption; animal feed and fertilizer containing mammalian tissues; rawhide chews for animals; beef fat and tallow; enzyme, organ and glandular derivatives and extracts; skin and other materials such as collagen, Biological products for laboratory, Live animals, Food in general
Health Standard	Food safety, Protect consumers' interest	Pre-packaged food,

Measures	Application	Product
Sanitary and Phytosanitary Measures		
Contamination Standard	Food safety, Human health and safety, Public health, GMOs	All food products Ch. 1-22: Cattle muscle, fat and offal, wheat and barley , grapes; cattle fat, cattle muscle, cattle liver, cattle kidney, Cereals and cereal products, grapes and strawberries, tomatoes, sheep meat and sheep offals, poultry liver, cattle and sheep, cucurbits, Food derived from GMOs, potato Bt-11 corn, soybean, Herbs, spices, herbal infusions and teas, Meat and meat products, Milk, cream and fermented milk, ,Pork, poultry, beef and dairy fat or egg products, Processed foods, Sugar derived from sugar beet, Tahini or crushed sesame seeds or any foods containing them, Vitamins and minerals in general purpose foods, Fish and fish products. Selected food and tableware
Pest Controls	Animal and Plant Protection	Honey bee hive products and used equipment, Indoxacarb in head lettuce; Thymol residues in honey,Scoured, uncarded animal fibre from all countries, Specified bee products, Wool packs (used, empty),Banana (Musa spp.), Beta (sugar beet), Capsicum (pepper), Lens (lentil), Lycopersicon (tomato), Malus (apple), Medicago (lucerne), Prunus (plum), Pyrus (pear), Secale (rye), and

Measures	Application	Product
Sanitary and Phytosanitary Measures		
		Vaccinium (blueberry) seed, Garlic (Allium sativum) Grain (seed) for processing of Pisum sp. (peas), Actinidia seed, Citrus, Fortunella, Paeonia (herbaceous species), Poncirus and Vitis, dormant bulbs, Dracaena, plants, cuttings, canes and tissue culture, fresh and frozen Tuber species (truffles), Mangosteen (Garcinia mangostana), Papaya (Carica papaya), Seed for consumption, feed or processing of Helianthus (sunflower), Panicum (millet/panic grasses), Phaseolus (green beans/other beans), Pisum (pea) and Vicia (broad/faba bean) spp., Strawberry plants for planting, Vaccinium corymbosum bud wood/cuttings (stems only) and Vaccinium corymbosum plants in tissue culture
TBT/ SPS		
Quality Standards	Consumer Health and Safety, Food safety, Protect consumers' interest	Bread, breakfast cereals and biscuits, Cocoa and cocoa products, Derivation of energy factors in foods
Technical Barrier to Trade		
Labelling and packing rules	Consumer Health and Safety, Food safety	Processed meat products, All foods carrying nutrition content claims, health claims and related claims, Electrolyte drinks, Foods and processed

Measures	Application	Product
		foods, Foods for Specific, Foods/Processed Foods - Foods sold in New Zealand, Non- alcoholic beverages, Pre- packaged food, Royal jelly, bee pollen and popolis and certain processed food, dairy products, Copper Citrate as a processing aid for wine, Brassica napus var. oleifera (Canola and oilseed rape) seed, soybean seed, Milk, condensed milks, evaporated milks, dried milks and beverages made from soy or rice, Sweet corn (zea mays) seeds for sowing

Source: Centre for WTO Studies online web portal on TBT and SPS measures, as on 05-01-2010

The developed nations are protecting their agriculture sector through tariff (see chapter 5) and non-tariff measures. These measures effectively reduce the market access opportunities for the developing nations. The developed nations are enjoying the artificial comparative advantage by providing huge domestic support to agriculture sector on one hand, and protecting their agriculture sector by adopting the tariff and non-tariff measures on the other hand.

Chapter 7

Conclusion

The Agreement on Agriculture (AoA) under WTO gave hopes to the developing nations that the opening up of the economy would be beneficial for the farmer community in these countries. However, the outcome of AoA has not been beneficial to the developing countries due to numerous distortions and market access barriers in the developed nation. The developed countries are enjoying the comparative advantage in agriculture sector due to huge domestic support given to their farmer community. These countries are also distorting international trade in agriculture sector by adopting new and more stringent non-tariff barriers.

The importance of agriculture sector is evident from the fact that it continues to be the backbone of the Indian economy. In India, the share of agriculture sector in GDP has declined after the independence. However this sector still accounts for about 17.47 percent of GDP. It is noteworthy that the share of agriculture sector in India is much higher in comparison to other nations. India is the second most populous nation of the world with population of nearly 1.13 billion. The population and density in India is much higher than the population of the developed nations. The share of rural population in total population in India is more than developed nations. To a great extent, this section of population dependent on agriculture sector for their livelihood. About 57 percent, of total work force is employed in this sector in 2001. This share of employment in agriculture sector is many times higher than the developed nation. For instance, the share of agriculture in total employment in USA and New Zealand is 1.4 and 7.2 percent in 2007. Total agriculture land in India is lower than USA and Australia, but higher than

Japan and New Zealand. However, if population dependence on agriculture sector is taken into account then it would be clear that this sector is overburdened. It leads to fragmentation of landholding and disguised employment in agriculture sector. In case of India, about 82 percent of landholding is less than 2 hectare and about 99 percent of landholding is less than 10 hectare. It is obvious that majority of Indian farmers are resource poor. The vulnerability of Indian population can also be gauged by seeing the poverty data. About 27.5 percent of Indian population is below poverty line. In India, the poverty line for urban and rural area was Rs. 538 and Rs. 356 per capita per month respectively in year 2004-05. Thus, The tariff reduction commitments made under Doha round negotiations in agriculture will have more impact on Indian economy. The combined share of both the sectors (agriculture and industrial) comprise 46.30 percent of the total GDP, whereas for developed nations, this share lies between 24 to 35 percent. Therefore any outcome of Doha would mean that India's economy will be more open to the economies of other developed countries. It is the service sector in these countries that comprise more than 65 percent of total GDP, which is a huge market there. To get equitable market access benefit, India must seek greater market access in services, where the balance lies.

About agricultural export to world agricultural export, the share of Australia, Japan and USA has declined, whereas for India and New Zealand, the share increased over the period 1980 to 2008. In case of agricultural import, the share of Japan and USA has declined, whereas for other countries, this share has increased over the period 1980 to 2008. Similar trend is also observed for the share of select countries in world food export. Rice, dairy product, sugarcane, wheat, vegetables and fruits are the key production items for India. The ranking of top export and import items changed between 1995 and 2007 due to domestic demand & supply condition and other factors. However, agricultural

trade is directly affected by domestic support, tariff and non-tariff barriers.

In case of domestic support, India has no obligation to reduce domestic support under the Agreement on Agriculture sector. The product specific subsidy was negative for all crops except sugarcane. However, the picture is totally different in developed nation. USA, Japan and Australia are providing support to agriculture sector through Amber box, whereas in case of India, the AMS is below the de minimis level. In these countries, the product specific support is highly concentrated on few products. For instance, the USA is providing huge product specific support to corn, cotton, dairy, peanuts, soybeans, wheat and rice. In case of Japan, the product-specific subsidy is mainly concentrated on beef, meat of swine, milk, soybeans, sugar, sugar and wheat. Across all the countries, the green box accounted for the major share in the total domestic support to agriculture sector. High support given to agriculture sector by developed nation creates distortion in international trade. Various programmes under three boxes (Amber, Blue and Green) enable the developed nations to enjoy artificial comparative advantage in agriculture trade. This lead to excess production in developed nations and downward trend in international prices of agriculture commodities. In this way, it hampers the competitiveness of agriculture sector and so the welfare of people (as large portion of population is dependent on agriculture sector) in developing countries.

The tariff and non-tariff barriers adopted by selected developed nations have been identified in chapter 5 & 6 respectively. The bound and the applied rate in Australia and New Zealand are lower than the rates prevalent in the USA and Japan. For specific products, the bound and applied rate is too high in the selected developed nations. In USA and Japan, the applied tariff rate for some products is more than the bound rate. The developed nations are protecting their agriculture sector through tariff and

non-tariff measures. These measures effectively reduced the market access opportunities for the developing nations.

Overall, India's stake is much higher than developed nation as 57 percent of Indian population is directly employed in this sector and also due to high percentage of rural population. The agriculture sector plays an important role in India in terms of GDP, employment, poverty eradication and rural development in comparison to developed nation. The welfare of farmer and poor section of the society is directly linked to this sector. The developed nations are protecting their agricultural sector through domestic support, tariff and non-tariff barriers. To reap the benefits of free trade in agriculture, the developing countries should demand for reduction in domestic support and elimination of tariff and non-tariff barriers existing in developed nations.

Annexure A

Percentage contribution to GDP on 2008			
Developed Countries			
Country	Agriculture	Industry	Service
Australia	2.55	29.09	68.36
Austria	1.89	30.86	67.25
Canada			
France	2.00	20.45	77.55
Germany	0.88	30.16	68.97
Japan [#]	1.44	29.25	69.30
New Zealand [@]	6.44	25.55	68.02
United Kingdom	0.67	23.72	75.61
United States [#]	1.33	21.80	76.86
Developing Countries			
Afghanistan	31.63	26.27	42.10
Argentina	9.84	32.28	57.89
Bangladesh	19.01	28.51	52.48
Bhutan	18.72	46.09	35.20
Brazil	6.70	27.96	65.34
China	11.31	48.62	40.07
India	17.47	28.83	53.70
Maldives	6.19	17.66	76.15
Nepal	33.65	16.71	49.63
Pakistan	20.36	26.91	52.73
Republic of Korea	2.55	37.14	60.31
South Africa	3.33	33.70	62.97
Sri Lanka	13.38	29.37	57.25
Source: World Bank # For the year 2007 @ For the year 2004			

Useful Web Links

- www.commerce.nic.in
- www.wto.org
- www.unctad.org
- www.worldbank.org
- www.wipo.int
- www.fao.org
- www.unescap.org
- www.artnetontrade.org
- www.ictsd.org

Other Publications of the Centre for WTO Studies

- FAQ on WTO Negotiations in Agriculture
- FAQ on WTO Negotiations in Non Agriculture Market Access (NAMA)
- FAQ on WTO Negotiations in Services
- FAQ on Geographical Indications
- FAQ on WTO Agreement on Subsidies and Countervailing Measures
- FAQ on WTO Agreement on Safeguards
- FAQ on WTO Compatibility of Border Trade Measures for Environmental Protection
- Review of Trade Policies of India's Major Trading Partners
- *Discussion Paper 1:* India's Duty Free Tariff Preference Scheme: Case Study for Select LDCs
- *Discussion Paper 2:* Cotton Production, Exports and Price: A Comparative Analysis of India and USA
- *Discussion Paper 3:* Study on Identification of Select Textile and Wool and Woollen Products Having Export Potential to Chile, Colombia and Peru
- *Discussion Paper 4:* Trade Facilitation in WTO and Beyond
- Bimonthly newsmagazine titled 'India, WTO and Trade Issues'

All the above publications are available on the website of the Centre for WTO Studies, <http://wtocentre.iift.ac.in>

About the WTO Centre

The Centre for WTO Studies was set up in 1999. It is situated in IIFT since November, 2002. The objectives of the Centre are:

- To be a permanent repository of WTO negotiations related knowledge and documentation
- To conduct research on WTO and trade issues
- To interface with industry and Government through Outreach and Capacity Building programmes
- To act as a platform for consensus building between stakeholders and policy makers

The Centre is currently engaged research on following WTO related subjects:

- Agriculture
- Intellectual Property Rights
- Agreement on Sanitary and Phytosanitary Measures
- Agreement on Technical Barriers to Trade
- Trade Facilitation
- Environment and Trade
- Subsidies including Fishery Subsidies
- Anti-dumping
- Regional Trade Agreements

More information about the Centre and its activities can be accessed on its website: <http://wtocentre.iift.ac.in>



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